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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,027	08/07/2001	Mitchell M. Jackson	3091R	3043

7590 09/06/2005

THE LUBRIZOL CORPORATION
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EXAMINER

TOOMER, CEPHIA D

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 09/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/924,027

Applicant(s)

JACKSON ET AL.

Examiner

Cephia D. Toomer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,6,8 and 12-17 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,3,6,8 and 12-17 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office action is in response to the remarks and declaration filed June 30, 2005.

Claim Rejections - 35 USC § 103

1. Claims 1, 3, 6, 8 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malfer (US 5,725,612) in view of Aiello (US 5,006,130) for the reasons of record.

Applicant argues that in a preferred embodiment of the present invention unexpected results are obtained in the absence of polyether. Applicant argues that there is no motivation in either Malfer or Aiello for a formulation made without the presence of the polyether.

Malfer teaches that the carrier oil is used in a preferred embodiment and that the composition can be prepared in the absence of the carrier (see col. 5, lines 46-50).

Applicant argues that the prima facie case of obviousness is overcome by the data found in Tables 1 and 2 of the specification.

The showings are not commensurate in scope with the claims. The hydrocarbyl polyamine of the examples is derived from PIB (1300) and ethylene diamine. The claims are not limited to this particular polyamine. The Mannich reaction product is prepared from an alkylphenol of 1000 molecular weight high vinylidene PIB, formaldehyde and ethylene diamine. The claims are not limited to this particular Mannich reaction product. The examiner cannot ascertain if unexpected results are

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obtained over the huge range of polyamines and Mannich products that Applicant is claiming. Furthermore, the gasoline composition of the examples contains ethanol. There is no recitation of ethanol in the claimed invention.

The declaration submitted by Mitchell Jackson has been considered but is not deemed to be persuasive.

The gasoline contains ethanol and the additive package contains a solvent. Also, the Mannich detergent is present at 33% of the 235 ppm additive package. This amount of Mannich detergent is more than twice that of Examples 4 and 5 and almost twice that of Example 8. The examiner would not describe the example of the declaration as a comparative example.

2. Claims 1, 3, 6, 8 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harle (US 4, 166,726) in view of Moreton (5,876,468) for the reasons of record.

Applicant argues that the present invention reduces deposit formation on intake valves whereas Harle solves the problem of thermal degradation and oxidation of diesel fuel. Applicant argues that Harle does not suggest the present invention.

Harle teaches at col. 4, lines 31-37 that the mixture of polyalkylene amines and Mannich condensation may be used in fuels other than diesel, e.g. fuels for spark ignition engines. Therefore, Harle does teach and suggest the present fuel composition of the invention. While Harle may not be specifically concerned about deposit formation, it is clear from reading Harle that the deterioration due to oxidation of the fuel does produce gums and these gums deposit on the injector parts (see col. 1, lines 9-

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25). Since Harle specifically teaches that the additive composition may be used in spark ignition engines, this teaching combined with the teaching at col. 1, lines 9-25 suggest that deposits form on the injector parts of spark ignition engines and that the additive composition reduces or inhibits the formation of these deposits.

With respect to Applicant's argument that there is no motivation to combine the teachings of Harle with the teachings of Moreton, Harle teaches a well known Mannich base wherein the polyolefin is not specifically taught as having at least 70% of olefinic double bonds as vinylidene double bonds. Moreton teaches that Mannich bases prepared from such polyolefins are superior in performance when compared to Mannich bases that do not contain such polyolefins. Therefore, Moreton teaches that the Mannich chemistry has evolved since the days of Harle and the skilled artisan would recognize the advantage in using a Mannich base wherein the polyolefin has at least 70% of olefinic double bonds as vinylidene double bonds.

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Cephia D. Toomer
Primary Examiner
Art Unit 1714

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